

The Need For Trauma Kits In Maryland Public Schools

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Background

Maryland Public Schools lack the most basic supplies to aid in trauma injuries

EMS response is around 8 minutes- school nurses and faculty are the very first responders

A person can bleed to death from a larger arterial wound in 2-3 minutes, 4-5 minutes with a compromised airway

The American College of Surgeons Committee on Trauma has stated that bleeding must be controlled by prehospital providers as quickly as possible (Navarro, 2016).

Hemorrhage

- Second leading cause of death for patients injured in the prehospital environment
 - Accounts for 30-40 percent of all mortality
- In one study, 57 percent of the patients who died had injuries that might have been amenable to tourniquet application (Navarro, 2016).
 - Time is of the essence: 3-5 minutes

Uncontrolled hemorrhage is the most preventable cause of trauma deaths in the United States (“Get the Facts”)

Question

Would adding trauma kits to Maryland Public Schools decrease the risk of trauma related injuries and deaths?



Top 3 Trauma Injuries

- Extremity hemorrhage
- Tension pneumothorax
- Airway obstruction

All treatable with minimal supplies, but time sensitive injuries

Studies show up to 50% of combat fatalities and 80% of civilian trauma fatalities are due to uncontrolled hemorrhage from an extremity (“Get the Facts”)

Tourniquets

- Effective in decreasing the number of treatable exsanguination deaths due to extremity hemorrhage
- In US combat fatalities: from 2001 to 2011 treatable exsanguination deaths dropped from 7.8% to 2.6% (2015).
 - Early use = better outcomes

Implementation

Disseminate Information

- Educate the School Districts, parents, teachers, state governments on the need for trauma kits

Obtain Funding

- Get grants, donations, fundraise to obtain enough financial assistance in buying trauma kits for the schools

Place Trauma Kits in Schools and Train Staff

- Strategically place trauma kits in schools, and train staff

Evaluation

- See what schools have trauma kits
- Question faculty on where the trauma kits are
 - Test knowledge on how to use supplies
- Keep data on when trauma kits are used and the outcome

What Can Nurses Do?

- Educate about the need for trauma kits
- Petition state government and schools on getting trauma kits
- Train lay people on how to use the trauma kit supplies
- Become members of organizations like “Stop the Bleeding Coalition” or “Stop the Bleed”

Trauma Kits Can Include:

Tourniquets, Nitrile Gloves, Trauma Shears, Permanent Markers, Chest Seals, Trauma Dressings, Pressure Bandages, Bleeding Control Dressings



Costs

- Depends on size of kit and supplies
- Price range from \$100 and up per full kit
 - Place larger kits with AEDS
 - Smaller kits in each classroom
- Any expired supplies can be used for training



Conclusion

- Howard County Public Schools have trauma kits (donated from HCFD)
 - Better prepared = better outcomes
- Frederick County Public Schools are starting to place tourniquets with the AEDs